PREVENTION OF PROGRESSION OF MINIMAL CORONARY LESIONS WITH A CALCIUM CHANNEL BLOCKER.

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To determine whether calcium antagonists influence the progression of early coronary lesions, we examined retrospectively the data from a recently completed, randomized double-blind, placebo-controlled trial (Contr Clin Trials 8:216,1987). Within 1 month of coronary arteriography, 383 pts aged ≤65 years with 5 to 75% diameter stenoses in at least 4 coronary segments were randomized to placebo or nicardipine 30 mg TID. At 24 months, 335 pts (87%) with 2,323 lesions were restudied; all but 10 (5 in each group) had remained on their originally assigned treatment. Coronary stenoses were measured quantitatively using the system of Reiber et al. Progression and regression, the primary endpoints of the study, occurred with equal frequencies in the nicardipine and placebo groups, analyzed either on a per pt or per lesion basis. However, among the 411 lesions with ≤20% diameter stenosis at the first study, important differences were seen. Progression, defined as a ≥10% worsening in stenosis severity, occurred in 16 of 178 (9.0%) nicardipine and 38 of 233 (16.3%) placebo lesions ($p<0.05$). Among the 217 pts with stenoses ≤20%, progression developed at 1 or more sites in 15 of 99 nicardipine pts and 32 of 118 placebo pts (15% vs 27%, $p<0.05$). Progression to ≥50% was seen in 15 (28%) of the 54 lesions ≤ 20%, 5 in the nicardipine and 10 in the placebo group.

These results suggest that nicardipine may retard the progression of early coronary atherosclerotic lesions.

LONG TERM PROGNOSIS OF OCTOGENARIANS UNDERGOING CORONARY ARTERY BYPASS SURGERY.

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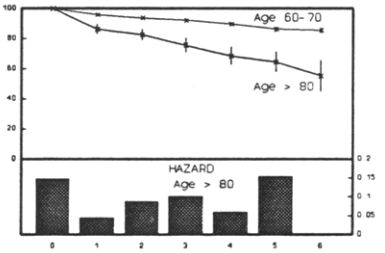
To determine the long term prognosis of octogenarians (OCT) after bypass surgery we studied 150 patients over 80 (mean 82.5) undergoing isolated coronary artery bypass surgery (CABG). Factors affecting their survival to that of 1110 younger patients (Y) ages 60-70 undergoing CABG in the same period (1982-1988).



Results: Overall 30 day mortality was 4.7% for OCT and 2.4% for Y (P=.14). Cumulative mortality was 8.75% for Y and 19.46% for OCT (P<.001). OCT patients were more often female (32% vs 19%, P<.001), more often had class IV symptoms (75% vs 46%, P<.001), had less grafts (P<.001), and fewer had mammary grafts (IMA) (69.5% vs 21.3%, P<.001). Net survival was 86% at the end of one year for OCT, 76% at 3 years, and 65% at 5 years. Factors influencing OCT mortality were preoperative NYHA class, history of arrhythmias or of prior MI. Performance of an IMA did not affect OCT survival. **Conclusion:** Median survival of OCT after CABG is in excess of 5 years and advanced symptomatic stage at referral to surgery increases mortality. These results suggest a reappraisal of current conservative strategies in referring OCT for CABG.

Tuesday, March 20, 1990
2:00PM–3:30PM, Room 16
Cardiac Surgery: Coronary Heart Disease

SHORT TERM MORTALITY IN PATIENTS SELECTED FOR CORONARY ARTERY BYPASS SURGERY: A CASE-CONTROL STUDY

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We studied 1124 consecutive patients (pts) who were selected for coronary artery bypass surgery (CABG). Of pts waiting for CABG (wait 98±3 days) 25 pts (2.2%) died before operation (wait 63±10 days). We matched 25 deceased pts versus 50 CABG pts for age, gender and waitpriority. The following variables were analysed: NYHA angina class, presence of unstable angina before coronary angiography, cardiomegaly (X-ray), exercise testing with low capacity (ET), medication, smoking habits, coronary artery disease and left ventricular function. To determine independent predictors for short term mortality in candidates for CABG, multivariate analysis using a stepwise logistic regression procedure was performed. Results:

Independent Variables	OR	95%-CI
Positive ET, ≤ 6 minutes	18.8	(2.5, 139.6)
Cardiac enlargement (X-ray)	13.0	(1.3, 132.2)
Smoking	7.7	(1.3, 47.7)
Coumarine treatment	7.3	(1.4, 37.6)
3-vessel/left main disease	4.9	(0.8, 30.4)
Unstable angina	3.6	(0.8, 16.9)

OR = Odds Ratios, CI = Confidence Intervals

We conclude that these variables are associated with an increased short term mortality in candidates selected for CABG. These indicators may contribute importantly in the selection of candidates for early CABG.

ANGIOGRAPHIC DATA OF THE EPIGASTRIC ARTERY- A NEW CONDUIT FOR MYOCARDIAL REVASCULARISATION.

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We have recently reported a new technique of aorto-coronary bypass grafting by using a free epigastric artery in patients undergoing complex coronary grafting for recurrence of angina after previous cardiac surgery. The long-term patency of a free epigastric artery graft is expected to be similar to the patency of a free internal mammary graft. The present study was undertaken to obtain morphological data on the epigastric arteries. We describe the angiographic technique of selective opacification of the epigastric artery. 100 consecutive patients with proven coronary artery disease were studied during routine coronary angiography. Selective angiography of the right epigastric artery and of the left internal mamary artery was obtained in all patients , except in 2 patients where the internal mammary artery could not been opacified. No complication occurred during this angiographic study.

No atherosclerotic lesions were observed neither on the internal mammary artery, nor on the epigastric artery. All internal mammary arteries seemed suitable for bypass grafting. 4 epigastric arteries seemed unsuitable for free bypass grafting. In 20 patients, quantitative angiography was performed in order to assess the length of both arteries and the size of both arteries at 5 cm from their ostium. The internal mammary artery was significantly longer than the epigastric artery (20.3 ± 1.9 cm vs 13.1 ± 13.1 cm, $p < 0.001$). The size of epigastric artery was significantly lower than the size of internal mammary artery (2.4 ± 0.4 mm versus 2.8 ± 0.4 mm, $p < 0.002$).

Our data suggest that the epigastric artery is yet another muscular artery protected against atherosclerosis and could be used as a new conduit for myocardial revascularisation. The smaller dimensions of the epigastric artery seem to limit in some instances the suitability for free bypass grafting. Preoperative selective angiography of the epigastric artery seems therefore necessary.